Report Card Grading Criteria

Process

For the 2005 Report Card, the Washington State Department of Health assigned grades to the indicators based on the criteria and considerations outlined below. Building on earlier work, the criteria were developed by the Key Health Indicators Committee through a collaborative process with a technical committee at the Department of Health. The grades were reviewed by persons with expertise in the subject areas covered by the report card and by the Key Health Indicators Committee.

Definitions

- Categories: Broad health-related topics that are graded by combining grades for one or more indicators.
- Indicators: Measures of health status, health behaviors, and related factors, the measurement of which provides a perspective on health in Washington. Definitions for report card indicators are available at www.doh.wa.gov/reportcard
- Grading components: Areas in which indicators are measured and graded. The 2005 Report Card uses three grading components: 1) how rates in Washington compare to those in the United States, 2) whether rates in Washington are improving or getting worse, and 3) whether there are disparities among persons in different racial or ethnic groups. For future report cards, the Key Health Indicators Committee will consider adding grading components for how we compare to a goal or target and whether there are disparities based on social and economic factors.
- Rates: A rate represents the number of events per unit of population. Most often, rates for health outcomes are expressed as the number of events per 100,000 persons. Rates for behaviors are generally expressed as percents, which are rates per 100 persons. When comparing rates between two groups (e.g., Washington and the United States) or across time, it is common practice to adjust rates for differences in age structures between the two groups. For the 2005 Report Card, we have opted not to make these adjustments, because there are not substantive differences between grades based on adjusted compared to non-adjusted rates. For more information on the use of rates in health assessment, see http://www.doh.wa.gov/Data/Guidelines/Rateguide.htm

Indicator grading

For the 2005 Report Card, indicators are graded by assigning an A–F to each of the grading components defined above. Grades are assigned by applying the criteria described on the following pages to the data for each indicator. In addition, the complexity of the data and limitations of some data sets argue for considering a broader context in assigning some grades, such as similar data from other sources or data from similar sub-populations. These considerations are also described. Detail on the rationale for each grade and the data used in assigning grades is available at www.doh.wa.gov/reportcard

1) How do rates in Washington compare to rates in the United States?

Where possible, we compare Washington State rates to the rates for the United States for the three most recent years of data. For some indicators, the years of data for comparing Washington to the United States are earlier than those used for assessing trends and disparities because we have more recent data for Washington than we have for the nation as a whole.

Criteria for assigning grades

A Washington's rates are statistically significantly better than rates for the United States for each year of the three most recent years, OR Washington rates are the same as the United States, but both are doing as well as possible (see other considerations, below).

B Anything between A and C.

C Washington's rates are not statistically significantly different from rates for the United States for the three most recent years.

D Anything between C and F.

F Washington's rates are statistically significantly worse than those for the United States for the three most recent years.

Other considerations

- In the absence of rates for the United States, grades may be based on median values or rates for a subset of states.
- The grade may be based on fewer than three years of data if the broader context indicates that the data are stable and robust.
- The grading component is not graded if Washington and United States data are not comparable.
- The grade may be raised or lowered based on how the United States compares to other developed countries. For example, while Washington does well compared to the United States with regard to life expectancy and homicide, the United States ranks low among developed nations on these indicators.
- "As well as possible" is defined as follows:
  - Infectious disease: not more than three cases for the past three years.
  - Behaviors: 95% or more of the population engaging in healthy behaviors for at least three consecutive years.
  - Drinking water quality standards: not dropping below 97% for at least two consecutive years.
  - Air: 100% of the population is breathing clean air for at least three consecutive years.

2) Are rates in Washington improving or getting worse?

We are interested in recent trends, defined as the trend over the last five years. However, a longer time period is often necessary to understand the trend in the five most recent years. For example, indicators that are decreasing slowly may look like they are not changing if we look at a five year period only. Additionally, for data that are collected every other year, the most recent five years may have too few data points to assess a trend. Thus, we use the Joinpoint software developed by the National Cancer Institute to assess trends in data from 1990 forward. If the trend is not consistent for the entire time period, we base the grade on the trend for the most recent five years. Information on Joinpoint is available at http://srab.cancer.gov/joinpoint/.

Criteria for assigning grades

A The trend shows statistically significant improvement, OR the trend is not changing, but Washington is doing as well as possible.

B Washington does not meet criteria for an A, but a broader context indicates Washington is moving in the right direction.

C The trend is flat or with no consistent direction.

D Washington does not meet criteria for an F, but the broader context indicates Washington is moving in the wrong direction.

F The trend shows statistically significant worsening.

Other considerations

- If data are not available beginning in 1990, we use the earliest year of data available after 1990 to the present.
- If there are fewer than five data points, we either do not assign a grade or assign a grade based on at least three data points if the broader context indicates the data are stable and robust.
- A grade of C may be increased to a B or decreased to a D if the trend is marginally statistically significant ($p>0.05$ and <0.10), the average annual percent change is greater than 1.5%, and there are at least five years of data.
- "As well as possible" is defined the same as in "How do rates in Washington compare to rates in the United States?"

3) Are there disparities among persons in different racial or ethnic groups?

The collection of data on race and ethnic group varies across data sets and this variation has implications for how race and ethnic groups can be defined. For the 2005 Report Card, where possible, we assess racial and ethnic disparities using five groups: Hispanics, non-Hispanic American Indians and Alaska Natives (AIAN, NH), non-Hispanic Asians and Pacific Islanders (API, NH), non-Hispanic blacks or African Americans, and non-Hispanic whites. For some data sets, we include additional groups, such as multi-racial or other.

These classifications may change over time as data sets change their collection methods and as definitions of race and ethnic group change. It is important to note that the racial and ethnic groups are not homogenous in terms of cultural practices, socioeconomics, and other factors that affect health. More information on the use of race and ethnicity in health assessment is available at http://www.doh.wa.gov/Data/Guidelines/Raceguide1.htm

Where possible, we combine three consecutive years of data to decrease variability, and we require at least 30 persons in each race group for population-based data and 50 persons in each race group for survey data. The Key Health Indicator Committee opted to use guidelines issued by the Centers for Disease Control and Prevention (CDC),[1] to assess disparities. This method requires identifying the largest statistically significant difference between groups. This is usually the difference between the group with the highest rate of adverse health events or behaviors compared to the group with the lowest rate. However, there are instances where the comparison between the highest and lowest groups is not significant due to relatively small numbers, but other comparisons are. If there is a statistically significant difference, there are disparities. Based on the CDC guidelines, we require that the rate for the group with the lowest levels of adverse health events or behaviors have adequate reliability.

Following the CDC guidelines, we then determine the magnitude of the disparity by computing a percent difference between the groups with the highest and lowest rates using the following formula when a high rate indicates high levels of adverse health events or behaviors

[(highest rate – lowest rate)/lowest rate] x 100 = percent difference

The highest and lowest rates are reversed when a high rate indicates high levels of a positive health event or behavior. The computation is adjusted when the health event or behavior is common, because in these instances, percent differences are not sensitive indicators of disparity. For example, since most adolescents graduate from high school, retention rates that range from 80%–95% for different race groups result in a 16% difference between the groups with the highest and lowest rates. With high school retention rates between 80%–95%, dropout rates range from 20%–5%, giving a 300% difference. In this instance, the 300% difference is used to determine disparities.

If there are disparities, the grade is based on the percent differences. The grade may be adjusted if, based on methods outlined in the CDC guidelines, there are statistically significant increases or reductions in the percent differences in the most recent time period compared to previous periods beginning in 1990 at the earliest (see Table 1). This method is more likely to find disparities than methods that compare each racial and ethnic group to a standard rate, such as the overall state rate, because the groups with the best and worst rates will be more different from each other than from the state rate. This method also makes the implicit assumption that we can all be as healthy as the healthiest group.

[1] Centers for Disease Control and Prevention, Statistical Notes #25, Measuring Progress in Healthy People 2010, September 2004, available at http://www.cdc.gov/nchs/data/statnt/statnt25.pdf

Table 1: Criteria for Assigning Grades for Disparities

Grade	Basic criteria	Adjustment for decrease in disparities because groups with high rates of adverse health events or risk factors are improving	Adjustment for decrease in disparities because groups with low rates of adverse health events or risk factors are getting worse	Adjustment for increasing disparities
A	No statistically significant disparities.			
B	The percent difference between the highest and lowest groups is statistically significant and less than 100%.	Meet basic criteria for a C AND the current percent difference is statistically significantly smaller than in previous time periods.		
C	The percent difference between the highest and lowest groups is statistically significant and between 100% and 199%.	Meet basic criteria for a D AND the current percent difference is statistically significantly smaller than in previous time periods.	Meet basic criteria for an A or B AND the current percent difference is statistically significantly smaller than in previous time periods because rates have increased among groups with previously low rates of adverse health events or risk factors.	Meet basic criteria for a B AND the current percent difference is statistically significantly larger than in previous time periods.
D	The percent difference between the highest and lowest groups is statistically significant and between 200% and 499%.	Meet basic criteria for an F AND the current percent difference is statistically significantly smaller than in previous time periods.	Meet basic criteria for a C AND the current percent difference is statistically significantly smaller than in previous time periods because rates have increased among groups with previously low rates of adverse health events or risk factors.	Meet basic criteria for a C AND the current percent difference is statistically significantly larger than in previous time periods.
F	The percent difference between the highest and lowest groups is statistically significant and greater than or equal to 500%.		Meet basic criteria for a D AND the current percent difference is statistically significantly smaller than in previous time periods because rates have increased among groups with previously low rates of adverse health events or risk factors.	Meet basic criteria for a D AND the current percent difference is statistically significantly larger than in previous time periods.

Other considerations

- In the absence of three years of data, grades are assigned based on one or two years of data if there are a sufficient number of persons in each race group.
- If there are between 10 and 29 persons in population-based data or between 30 and 49 persons in survey data, a grade may be assigned if the broader context indicates that the data are stable and robust.

Averaging grades across grading components

To develop a grade for each indicator, we assign a 4 to an A, 3 to a B, 2 to a C, 1 to a D, and 0 to an F. We then add across grading components, divide by the number of grading components, and assign grades as follows:

- > 3.5 – 4.0: A
- > 2.5 – 3.5: B
- > 1.5 – 2.5: C
- > 0.5 – 1.5: D
- < 0.5: F

Grading categories

Categories are graded by averaging the numerical points assigned to each indicator and assigning a letter grade as specified. To assign a category grade, there must be grades for at least three indicators, each of which has data for at least one grading component. Category grades may be assigned based on fewer indicators if each indicator has grades for at least two grading components.